**Unit Three: Male and Female Reproduction Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unit Objectives:**

1. To describe the functions and structures of the male and female reproductive systems

2. To label the structures of the male/female reproductive systems

3. To understand and demonstrate the pathway of sperm from production to release from the penis

4. To understand various health problems specific to the reproductive systems, and factors that

may predispose a person to those problems

5. To examine various methods for preventing and treating acute and long-term reproductive health problems

6. To identify and discuss the stages of embryonic and fetal development from conception through delivery.

7. To examine behaviors that can hurt or help the developing fetus during pregnancy.

8. To discuss vaginal and cesarean delivery and potential complications associated with each

**Assessments:** This unit will be assessed with a summative project

This unit will also be assessed with a quiz on the anatomy of both systems

**Unit Three Syllabus:**

|  |  |  |
| --- | --- | --- |
| **Day** | **Lesson Objectives** | **Assignments** |
| **10/1 & 10/2** | Unit Introduction:  Knowledge Rating Guide  Male Reproductive  Anatomy and Notes |  |
| **10/3** | Finish Male Reproduction  Anatomy Notes  Review Sheet | Complete assigned part of Male Diseases  Activity |
| **10/7** | Male Reproductive Anatomy  Problems Jigsaw Activity |  |
| **10/8** | Female Reproductive  Anatomy Notes | Complete assigned part of Female Diseases  Activity |
| **10/9 & 10/10** | Finish Female Reproductive  Anatomy/Review  Female Anatomy Diseases  Jigsaw Activity | Study for Anatomy Quiz on 10/14 |
| **10/11** | Female Diseases Discussion | Read and complete assignments on pgs. 14-17  Due 10/14 |
| **10/14** | M/F Anatomy Quiz  Menstrual Cycle Overview |  |
| **10/15 & 10/16** | RAFT Project |  |
| **10/17** | RAFT Project | Project Due: Monday Oct. 27th |
| **10/20 & 10/21** | Video: Life’s Greatest  Miracle |  |
|  |  |  |

## Knowledge Rating Guide: Male and Female Reproductive Anatomy

|  |  |
| --- | --- |
| **Male/Female or BOTH**  **Write “M,” “F,” or “B”** | **Term** |
|  | **Penis** |
|  | **Ovary** |
|  | **Testosterone** |
|  | **Clitoris** |
|  | **Prostate** |
|  | **Egg/Ova** |
|  | **Fallopian Tube** |
|  | Cowper’s Gland |
|  | Uterus |
|  | Endometrium |
|  | Estrogen/Progesterone |
|  | Seminal Vesicle |
|  | Testicle |
|  | Foreskin |
|  | Hymen |
|  | Sterile |
|  | Circumcision |
|  | Cervix |
|  | Urethra |
|  | Ejaculation |
|  | Vagina |
|  | Labia |
|  | Seminiferous Tubules |
|  | Scrotum |
|  | Epididymis |
|  | Vas Deferens |
|  | Sperm |
|  |  |
|  | Erection |
|  | Menstruation |
|  | Ovulation |

**Male Reproductive Anatomy Vocabulary and Note Sheet**

1. **Scrotum:** Sac that hold the testicles. Protects sperm by:

**Reasons temperature control could be disrupted:**

**a. b. c. d.**

2. **Testicles:**

3. **Seminiferous Tubules:** Hundreds of tiny coiled tubes in testicles that\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **4. Sperm:**

How long can sperm survive inside the male reproductive system?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How long can sperm survive inside female reproductive system?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **5. Semen**:
2. Two parts of the male reproductive system that add fluid to semen

a. b.

1. **6. Epididymis:**
2. **7. Vas Deferens**: Tubes that connect the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, so sperm can travel through them.

Cutting of the vas deferens for the purposes of preventing pregnancy is called a :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**8. Seminal Vesicle**: Contribute **70%** of seminal fluid to sperm as they pass through the vas deferens.

Give the sperm:

1. 2.

9. **Prostate Gland: A** walnut-sized gland that produces prostaglandins, these hormones cause:

Common site for\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. **Cowper’s Gland:**

The function of the cowper’s gland makes the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ method of birth control a POOR choice.

1. **11.Urethra:** Passageway through which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ leave the penis.

**12.** **Penis:** Male reproductive organ, filled with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Two Functions:**

**a.**

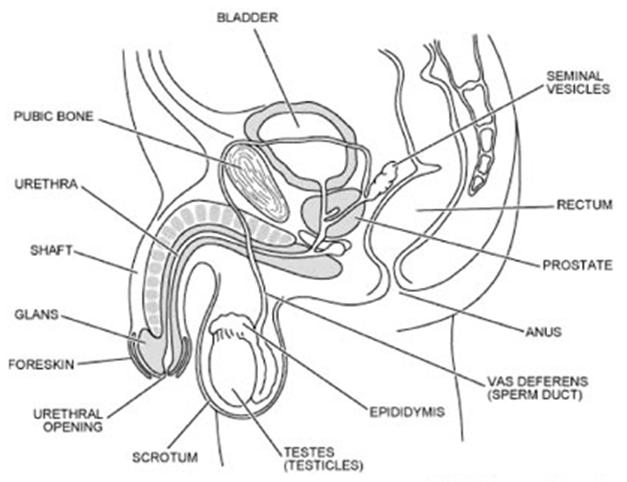
**b.**

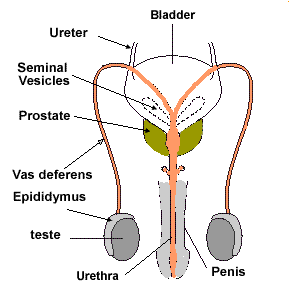
1. **13. Erection:**
2. **14.Ejaculation:**

# of Sperm in One Ejaculate??\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. **Foreskin:**

**16. Circumcision:**





**The Male Reproductive System**

**Use the words provided to fill in the blanks for the paragraph below.**

Sperm Vas Deferens Erection Epididymis Withdrawal

Cowper’s Prostate Semen Urethra Urine

Scrotum Seminal Vesicles Testicles Temperature Control

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are produced in the small seminiferous tubules of the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These oval-shaped glands are protected by a sac called the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, whose primary job is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. After the sperm cells are produced they will mature in the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Before a man can ejaculate, the spongy tissue surrounding the penis

becomes engorged with blood, causing the penis to increase in length and width, this is known as an

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Once this occurs the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gland

will release a lubricating fluid that may contain sperm. Due to this fluid, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

method of birth control should NEVER be used. Once the process of ejaculation begins, the sperm will

immediately move from the epididymis and travel through the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

While traveling through this tube, the sperm will be nourished by fructose and amino acids from the two

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gland will then

add fluid and prostaglandins, which can make the uterus contract and propel sperm toward the ovaries.

These fluids combine with the sperm to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The tube that carries the

semen from the body is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This tube also carries

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the bladder.

**Male Reproductive Health Problems:** [www.mayoclinic.com](http://www.mayoclinic.com/)**,** [www.emedicinehealth.com](http://www.emedicinehealth.com/)**,**

[www.medicinenet.com](http://www.medicinenet.com/)**,** [www.kidshealth.org](http://www.kidshealth.org/), [www.cdc.gov](http://www.cdc.gov/)

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition and Causes** | **Symptoms**  **(what you see/feel)** | **BASIC Treatment**  **(med/surgery/doc visit)** | **Prevention (What to do or not do)** |
| **Testicular Torsion** |  |  |  |
| **Inguinal Hernia** |  |  |  |
| **Definition & Causes** | **Symptoms** | **Basic Treatment** | **Prevention** |
| **Testicular Cancer**  **Age Group Affected?** |  |  |  |
| **Epididymitis** |  |  |  |
| **Male Sterility or Infertility** |  |  |  |
| **Prostate Cancer** |  |  |  |

**Female Reproductive Anatomy Worksheet**

**Vagina:** 3- 5 inches long: Has two main functions:

**1.**

**2.**

**Urethra:**

**Hymen:** Thin membrane that partially covers the vaginal opening. May or may not be intact.

**Labia Majora/Minora:**

**Clitoris:**

**Cervix:**

The cervix will dilate to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm with labor

**Pap Smear:**

**Reasons to have exam:**

**Endometrium:**

**Uterus:**

**Fallopian Tubes:** Tubes that connect the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

pathway for sperm to get to the egg and the most common site of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

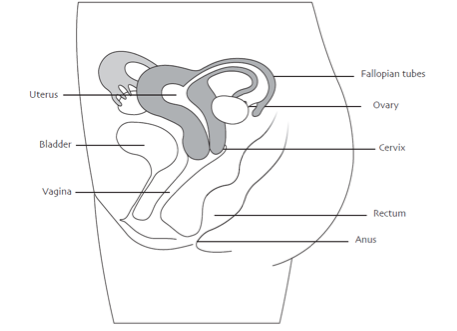
**Fembria:**

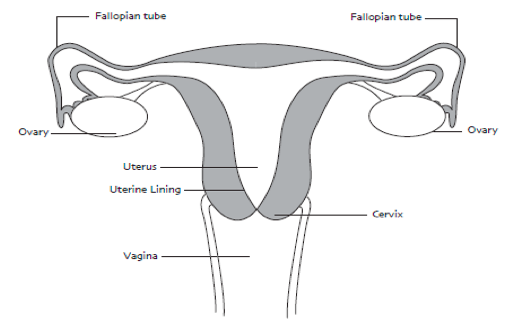
**Fertilization:**

**Ovary:**

**Egg/Ova:**

**Ovulation:**

****

****

**The Female Reproductive System**

**Use the words provided to fill in the blanks for the paragraph below. Each word is only used once.**

Eggs Fallopian Tubes Ectopic Pregnancy Uterus

Endometrium Ovaries Cervix Vagina

Dilates Fembria Labia Clitoris

Ovulation Menstruation

In her lifetime, a woman will produce about 400 viable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These

are produced in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and will be released on a monthly basis in the process

known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. During ovulation the egg will be gently swept into the fallopian tube with

the help of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.In order for the egg to become fertilized the sperm must first travel

through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is also known as the birth canal, and then through the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is the organ that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to allow the

birthing process. Passage through that organ will allow entry into the large pear-shaped muscular

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is lined by a thick mucous tissue known as the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This tissue will develop into the placenta if pregnancy were to

occur. In order to reach the egg the sperm must then travel through the thin channels that connect to the ovary

called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If an egg happened to implant in that

area it could cause a multitude of problems and is known as an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If the egg does not become fertilized several days following its release,

the inner lining of the uterus (called the endometrium) will be shed in the

process known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Finally the external female reproductive organs include

the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which are lip like structures that partially cover the urethral and vaginal

openings. As well as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is the only organ that does NOT have a

reproductive function.

**Female Reproductive Health Problems:** www.webmd.com, [www.mayoclinic.com](http://www.mayoclinic.com/)**,** [www.emedicinehealth.com](http://www.emedicinehealth.com/)**,**

[www.medicinenet.com](http://www.medicinenet.com/)**,** [www.kidshealth.org](http://www.kidshealth.org/), [www.cdc.gov](http://www.cdc.gov/)

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition & Causes** | **Symptoms**  **(what you see/feel)** | **BASIC Treatment**  **(med/surgery/doc visit)** | **Prevention**  **(What to do or not do)** |
| **Polycystic Ovarian Syndrome** |  |  |  |
| **Endometriosis** |  |  |  |
| **Cervical Cancer**  **What is the Gardasil Vaccine?** | **Who is it recommended for** | **How Is it Given?** | **Problems/Issues?** |
| **Urinary Tract Infection** |  |  |  |

**The Menstrual Cycle and Pregnancy: What do you know?:**

**Please indicate if each statement is true or false and write WHY. If you are unsure, use the Internet to conduct research for each question.**

1. It is appropriate to leave a tampon in overnight.
2. A girl should not exercise or go swimming when she is having her period.
3. It is common for a female to stop having her period if she begins exercising a lot and is losing weight.
4. All women are “moody” right before or during their period.
5. If you were pregnant, a pregnancy test would be positive almost immediately after you had sex.
6. If a female has sex during her period she CANNOT get pregnant.
7. You can’t get pregnant the first time you have sex.
8. When you go on a hormonal method of birth control you stop having your period completely, thus you can’t get pregnant.

**Understanding the Menstrual Cycle:**

**Each month, women of reproductive age who are not pregnant go through a cycle of fertility that results in either pregnancy or menstruation. The average menstrual cycle is 28 days but ranges from 21 to 35 days.**

**Days 1-5: Menstrual Phase**

The first day of a woman’s period is considered the first day of the menstrual cycle. If an egg has not been fertilized, it disintegrates. Low levels of the hormones progesterone and estrogen during this phase cause the **endometrium** (the lining of the uterus) to break down and shed in the form of menstrual blood, this is called **menstruation**. Bleeding lasts an average of five days.

**Days 5-13: Follicular Phase**

Early in the menstrual cycle the pituitary gland in the brain produces rising amounts of **follicle stimulating hormone** (FSH), which acts on the ovaries to promote the development of several **follicles**, or protective sacs each containing an egg. Only one follicle will reach maturity. Toward the end of this phase, the ovaries secrete increasing levels of estrogen, which causes the uterine lining to begin thickening in preparation for a potential fertilized egg. Just before a woman ovulates she may notice an increase in discharge into her underwear. Typically the cervix is closed up tight with a very thick mucus. Just prior to ovulation that mucus will become thin and create a “channel” for sperm to travel along while they make their way through the vagina and cervix and into the uterus. The discharge can appear clear or white.

**Days 10-18: Ovulatory Phase**

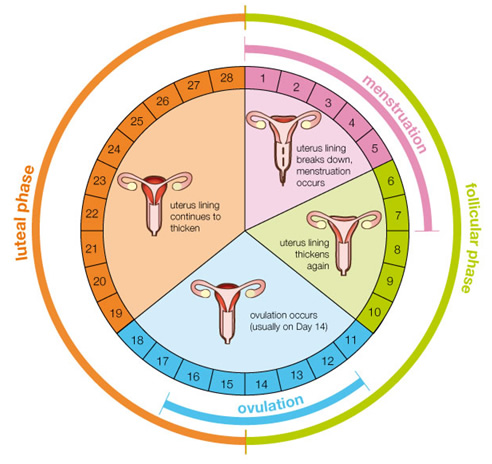
The pituitary gland and hypothalamus release a surge of **luteinizing hormone** (LH) about midway through the cycle. This hormone causes the mature follicle to burst out from the surface of the ovary and release its egg; this is called **ovulation. Ovulation** usually occurs around day 14 of the cycle. The egg then begins to travel down the fallopian tube and into the uterus. This is the time when a woman is most likely to become pregnant.

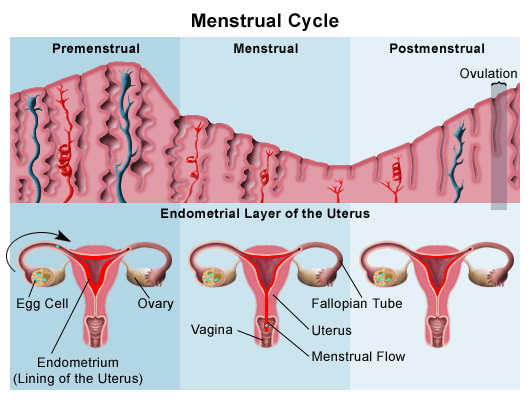
**Days 15-28: Luteal Phase**

After releasing the egg, the ruptured follicle develops into a structure called the corpus luteum(left behind in the ovary), which secretes increasing amounts of progesterone. The progesterone causes the endometrium (lining of the uterus) to thicken further and prepare to support a developing embryo. The endometrium will develop the placenta if the egg attaches to the uterine wall.

If the egg is fertilized, the corpus luteum begins to produce human chorionic gonadotropin, (the hormone that pregnancy tests detect), which maintains the corpus luteum and its progesterone secretion. The egg moves to the uterus and attaches itself to the endometrium about six or seven days after ovulation, where it begins to develop into an embryo/fetus.

If the egg is not fertilized, the corpus luteum degenerates after about 14 days and levels of progesterone and estrogen drop. This causes the endometrium to break down and shed, and a new menstrual cycle begins.

****

****

**Menstrual Cycle Vocabulary: For each term listed below, please**

**provide a definition from the reading, your own definition and then**

**a visual illustration to help you remember its definition.**

|  |  |  |
| --- | --- | --- |
| **Term** | **Definition from Reading** | **Own Definition or Visual** |
| **Endometrium** |  |  |
| **Menstruation** |  |  |
| **Follicle Stimulating Hormone** |  |  |
| **Follicle** |  |  |
| **Luteinizing Hormone** |  |  |
| **Ovulation** |  |  |

**The Menstrual Cycle: The monthly cycle of hormonal events that lead to ovulation and menstruation**

**Please write the 4 phases of the cycle in each box and then summarize what happens during each phase.**

Phase One:

Phase Two:

Phase Three:

Phase Four:

ffeaf

**Review of the Male and Female Reproductive Systems:**

**Write a short paragraph in the space below that demonstrates your understanding of how a sperm moves through the male reproductive system to find the egg in the female reproductive system. You must include all terms listed below and may organize your paragraph in any way you would like! This assignment will help you to get ready to complete the R.A.F.T. Assessment for this unit!**

Penis Urethra Testicle Epididymis Vas Deferens

Seminal Vesicle Seminiferous Tubules EggCowper’s Gland

Prostate Vagina ErectionEjaculation Cervix

Uterus Fallopian Tubes Sperm Fembria Ovary

Endometrium